

YORK INTERNATIONAL, WORLD LEADER IN MANUFACTURE AND MAINTENANCE OF AIR CONDITIONING AND REFRIGERATION PLANT, PROPOSE TO OFFER A COMPLETE AND COMPETITIVE RANGE OF AIR SYSTEM PRODUCTS FOR COMMERCIAL AND INDUSTRIAL USE. CULMINATING AFTER YEARS OF EXPERIENCE, YORK HAS CREATED ARTIFICIAL INTELLIGENCE WITH THE IMPLEMENTATION OF THE YKLON BOARD AND DPC-1 THERMOSTAT.



air systems →



Roomtop

Rooftop

Large Split

• DO YOU KNOW WHAT IS BEHIND **YKlon**?

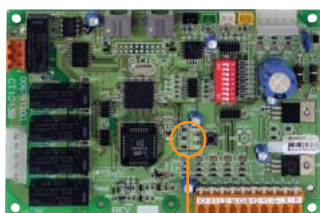
Features and benefits Thermostat DPC-1

Codes	Meaning
11	Circuit 1, Discharge temperature too high or probe short circuit
12	Circuit 1, High pressure switch, outdoor fan overload or compressor motor protection module
91	Selected sensor not valid
92	Indoor sensor not calibrated
93	Communication alarm
94	Pin alarm

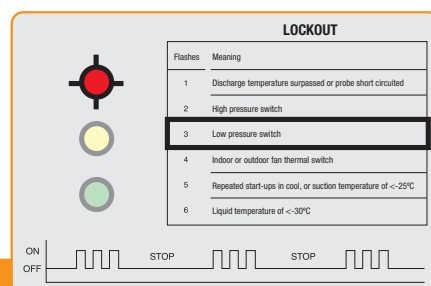
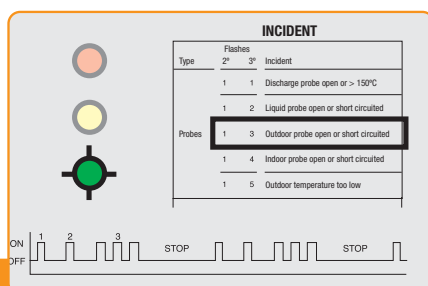
- Day (normal), night (economy) and unoccupied (stand by).
- Lockout code on screen gives direct diagnostics.
- ON/OFF or programmable from dip switch setting.
- Day or night programmable state avoids wide internal temperature variation.
- 3 preset and 3 programmable profiles.
- Select the control sensor you want to use (integrated in the thermostat, return air in duct or room sensor).
- Turbo, normal or economy logic from dip switch setting.
- Temperature override.
- From -3°C to $+3^{\circ}\text{C}$ sensor offset.

NEW ! • Average temperature with room or duct sensors.

YKlon



Led Diagnostic Code



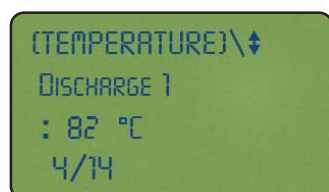
The **YKlon** is a controller regulating all components and accessories. It will pro actively manage cool and heat stages to maintain a stable room temperature. Additionally, the benefits are:

- Redundancy on cool and heat stages (if one step is locked out, the PCB starts another one automatically).
- Random start between units to minimise electrical tariff.
- All stages will start in sequence to reduce peak inrush.
- Automatic restart after power failure.
- Reduces nuisance calls by using 3 times "you are out" on all safeties before a hard lockout occurs.
- Compressors run time priority.
- Alarm output relay.
- Led diagnostic code.
- No parameters to check before starting.
- Lockout and incident level of protection.
- Use a standard 2-stage thermostat but get 98% of YKlon features.
- Last 10 lockouts stored in a non-volatile memory.

YKlink

The **YKlink** is a complete service that YORK can offer in order to provide a network between units. By utilising a commissioning service contract with YORK, you will have peace of mind improved reliability and the guarantee of consistent follow-up by trained engineers. For more detail, see the following pages.

YKtool



Features and benefits YKtool

- Cooling test.
- Heat pump, gas, hot water and electrical heating test.
- Defrost test
- Give access to input and output of the YKlon.
- Give access to accessories status.
- Read the probe values.



Thermostats with integrated sensors



DPC-1 / DPC-1R



Room and duct remote sensor

Model	RS-1
Code	603786042

Code		603786044	603786045
Models		DPC-1	DPC-1R
Roomtop	RTC and RTH	X	0
Rooftop	All models	X (1)	0
Split system	SOC and SOH	X	0
	SCOC and SCOH	X	0

Main features

Strategy	Turbo, normal or economy		
Auto restart after power failure	●	●	●
Number of cool stages	2	1	2
Number of heat stages	2	1	2
Auxiliary Heat	●	●	●
Automatic Heat/Cool change over	●	●	●
Continuous or auto indoor fan	●	●	●
Manual setback (Day/Night key)	Day, night and unoccupied		
Override possibility	●	●	●
Compressor anti short cycle	●	●	●
°C Range cooling / heating	10 to 32°C / 9 to 32°C		
Programmable, 7-day	●	●	●
Lockout codes	●	●	●
Outdoor air temperature	●	with YKlon	
Sensor selection	●	●	●

X : Delivered as standard with the unit X (1) : Standard but has to be ordered separately
 0 : Optional ● : Function available

Common Specifications

Copper-copper coil :

Available as an option, copper-copper coils are often used for refinery/chemical sites or salt-laden air where it is difficult to service the unit.

Anti-corrosion blue protected fins :

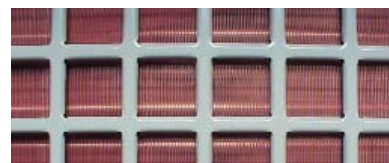
Available as option, blue coated fins (conform to 1000 hrs salt spray fog ASTM B117 standard) will extend the life of your A/C in aggressive area. An economical alternative to copper-copper coils.

Cabinet :

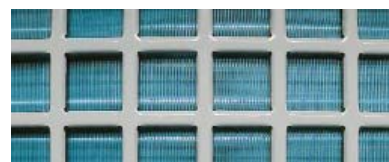
Build to be use in harsh conditions, heavy gauge galvanised steel cabinet will provide years of dependable operation. Automatic line painting process degrease, phosphate, passivate, clean with demineralised water and powder paint backed on oven at 220°C casing panels. An exceptionally durable finish RAL9002 guaranteed by 800 hours fog spray protection process in accordance with DIN 50 021.

Quality and ELT :

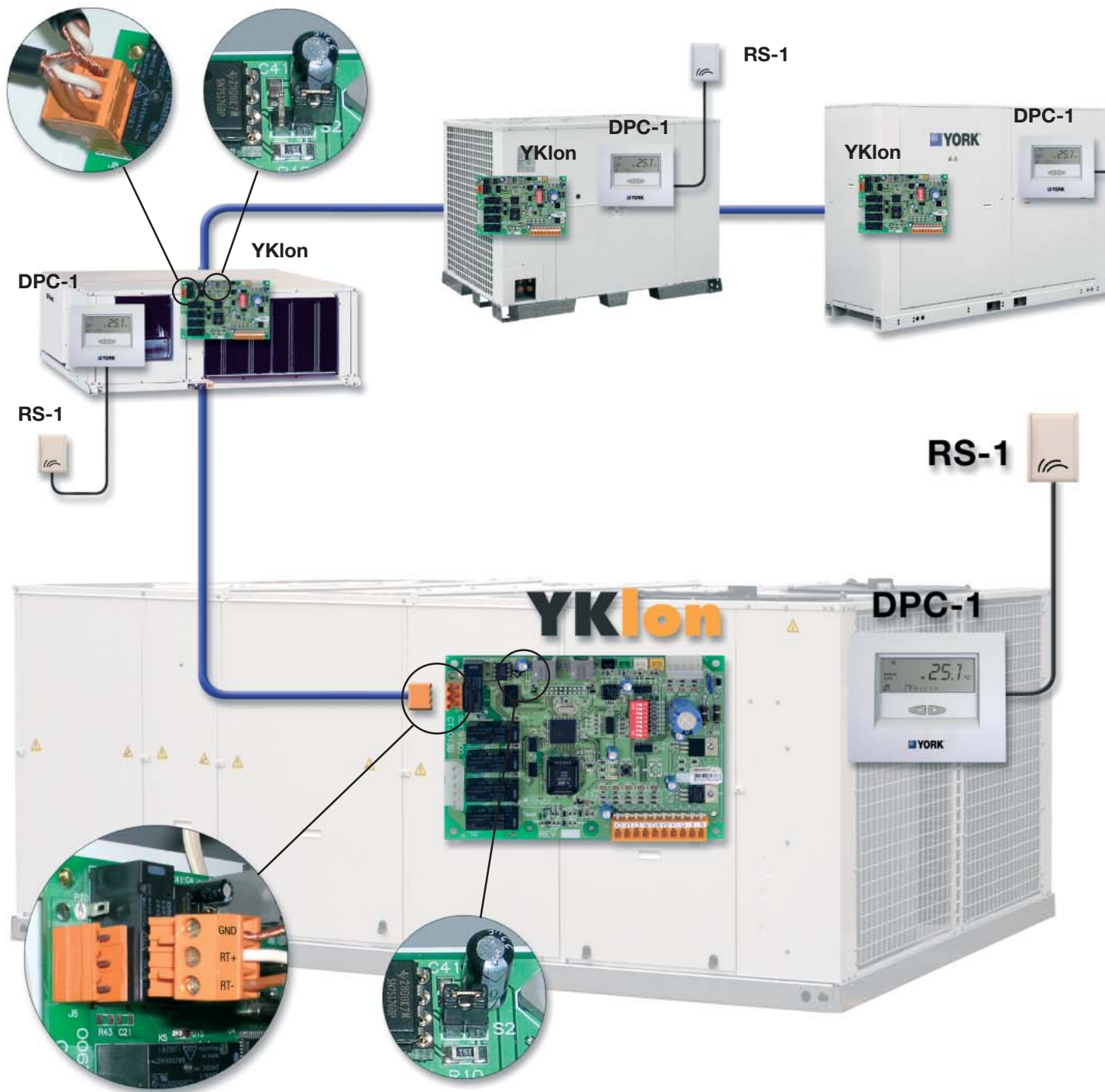
Design, built and tested under ISO9001 quality system certification, we are constantly listening to customer comments. For this reason, our End of Line Test ELT strives to be as close as possible to the commissioning you carry out on site.



Copper-copper coil



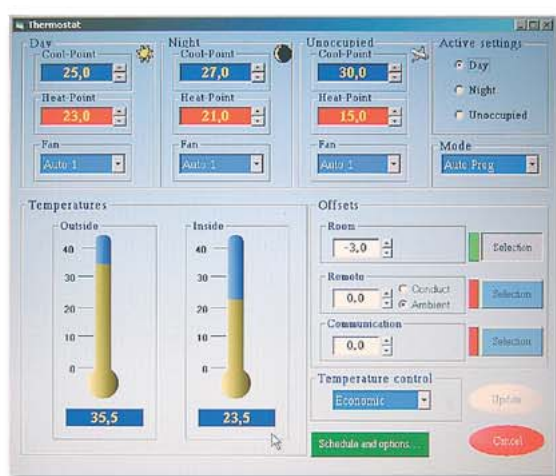
Anti-corrosion blue protected fins



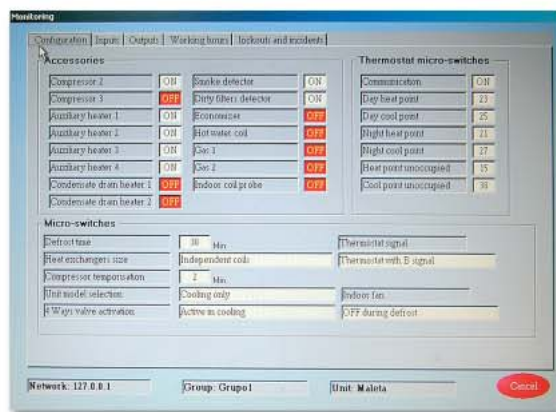
Echelon device networking technology enables end-users to remotely connect, monitor, control, sense, and diagnose intelligent devices. Today, thousands of intelligent devices and appliances are equipped with LonWorks networks. You can find them in every aspect of the device networking environment from HVAC and lighting in buildings, to collecting energy usage information or data across a grid of 27 million homes 24 hours a day. LonWorks networks simplify system management, conserve energy, improve operations, and reduce costs.



Set the temperature



Read the unit



Set the programming



Features and benefits of YKlink software

YKlink software is used to set-up and view the operation of HVAC units using YKlon's PCB. Installed into a dedicated computer, this software will allow:

- Group control of units working with the same conditions (temperature mode, daily schedule, etc...).
- View parameters such as:
 - Component status.
 - Air and refrigeration circuit temperatures.
 - Accessory status, etc.
- Remote control all DPC-1 thermostat settings: temperature, mode, programming, etc.
- Direct access to the last 10 lockouts and incidents.
- Create network of interconnected rooftop AHU's where each one has independent control.
- Generate business from remote monitoring service contract.
- Provides 24/7 real-time worldwide monitoring on YKlon products.
- Option of commissioning service contract.
- Access to the communication network business without relying on personnel with specific BMS knowledge.

System applications



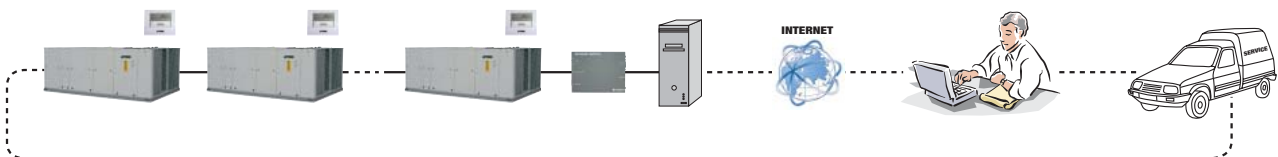
Used on a regular basis, you will come to appreciate the YKtool. For commissioning, it will override the thermostat and start the cool / heat stages. Being a plug and play device, you will have a direct access to all sensors, status of each component and accessory installed.

You need accurate data, so do I.



A dedicated computer with modem, a network adapter and telephone connection. This is all you need to realise your objective: "Send your engineer before your customer get's upset due to a HVAC problem". Be clever and use the potential of YKlink to send your operator with the required spare parts.

You care for your customers, so do I.

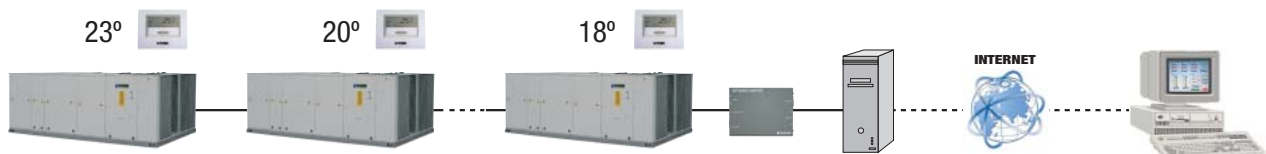


MULTIPLEX



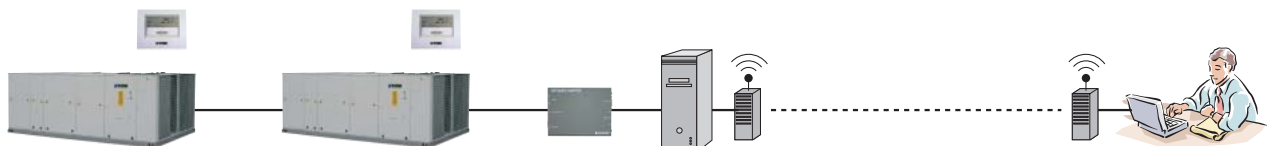
Analysis shows clearly: "dealer and installer must offer better value to keep customers and stay in business". A service contract can play a major role in this value proposition. Without BMS knowledge, YKlink software will allow weekly remote control for the settings in each room.

You need your customer, so do I.

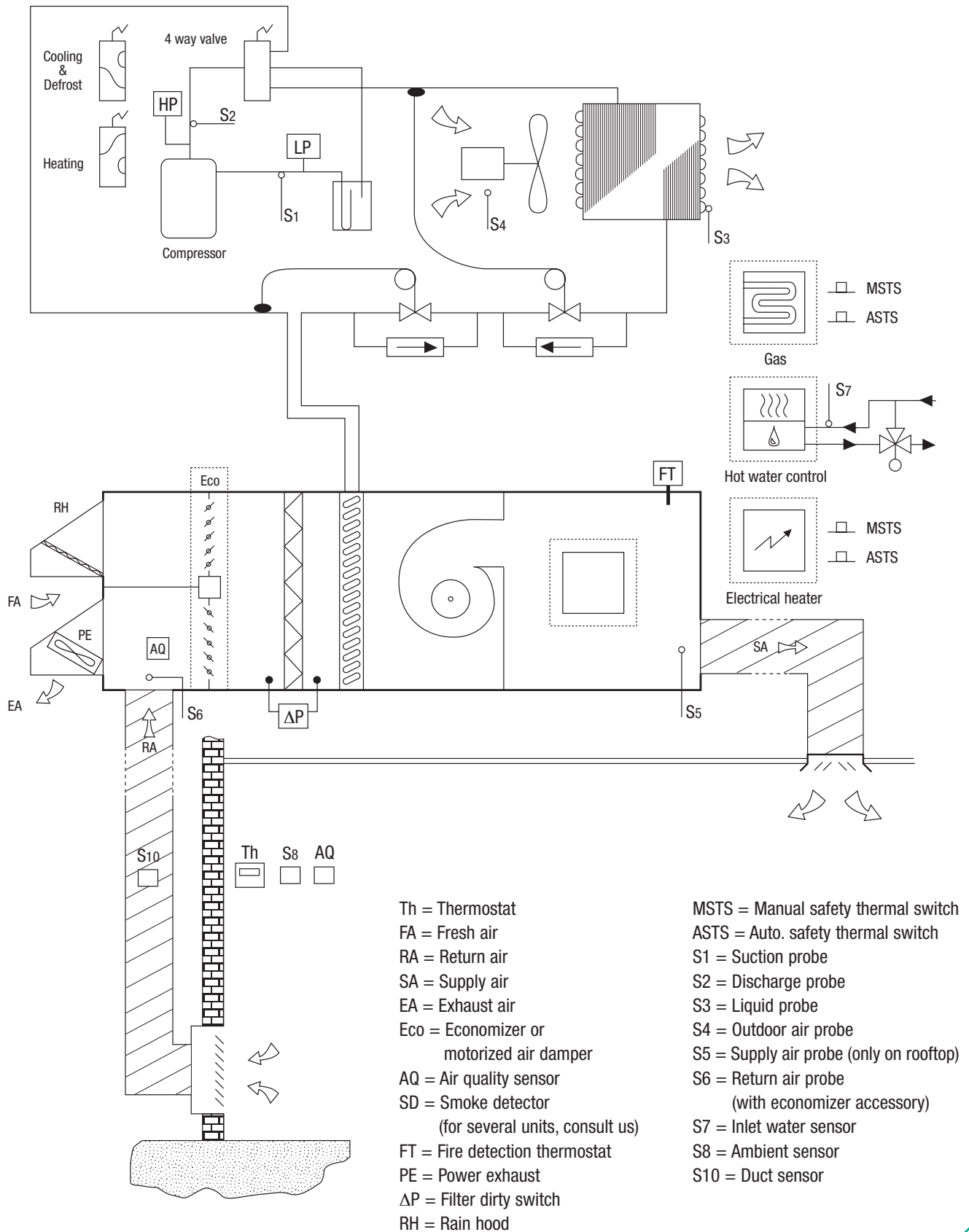


Is capital cost important to you ? If so, forget complicated and costly BMS network and use the new YKlink software together with wireless interface modem. It provides lockout alarm messages, remote reset, remote setting, etc..., and will help you to save time and money.

You have to save time and money, so do I.



ROOFTOP principle : More flexible than ever



AIR SYSTEMS

Roomtop Horizontal Monobloc

COMPACT SOLUTION FOR INDOOR APPLICATIONS!

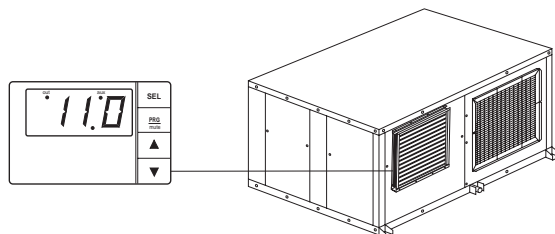
- Scroll Compressors.
- YKlon board.
- High external static pressure on evaporator and condenser.
- Thermostat and indoor air filter included.
- LED fault diagnosis with remote alarm.
- Two levels of safety: Lockout and incident.

R407C

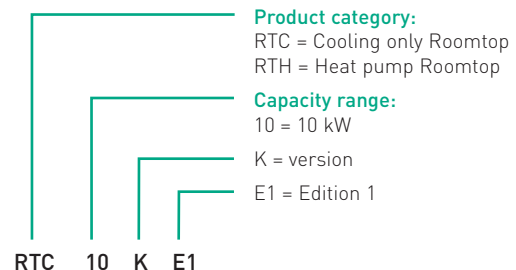


RTC-RTH 07 K - 30 K

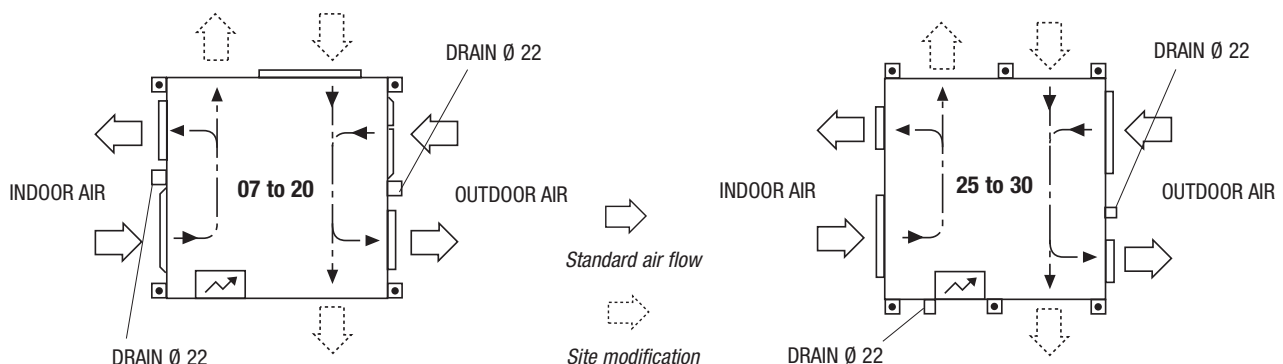
Low Ambient Regulation

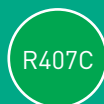


Product nomenclature



Schema





Roomtop

7 to 30 kW



Technical features

Cooling only models		RTC 07 K	RTC 10 K	RTC 15 K	RTC 20 K	RTC 25 K	RTC 30 K
Cooling capacities	kW	6.90	8.90	14.00	17.90	21.80	27.00
Power input in cooling	kW	2.95	4.04	6.80	8.95	10.10	13.00
In duct outdoor side sound power level	dB(A)	71	71	69	74	76	76
In duct indoor side sound power level	dB(A)	70	71	67	73	75	75
Heat pump models		RTH 07 K	RTH 10 K	RTH 15 K	RTH 20 K	RTH 25 K	RTH 30 K
Cooling capacities	kW	6.80	10.0	14.00	18.00	20.20	27.00
Power input in cooling	kW	3.09	4.09	6.80	9.00	10.00	12.30
Heating capacities	kW	7.00	10.4	14.50	18.00	20.20	27.50
Power input in heating	kW	2.92	4.35	5.29	6.20	7.50	11.20
In duct outdoor side sound power level	dB(A)	70	80	74	74	83	81
In duct indoor side sound power level	dB(A)	65	80	73	73	83	81
Common characteristics							
Power supply		230V/1/50Hz		400V/3 + N/ 50Hz			
Nominal / Starting current	A	17 / 72	10.1 / 45	13 / 62	15.4 / 79	18.7 / 77	21.8 / 80
Main switch (1)	A	25	20	25	25	25	32
Main cable (1)	Nbr. x mm ²	3 x 4	5 x 2,5	5 x 4	5 x 4	5 x 4	5 x 6
Cable to standard thermostat (2)	Nbr. x mm ²	10 x 0,22					
Evaporator fan at nominal airflow	Airflow m ³ /h	1 970	2 430	4 000	4 485	5 000	5 850
	Standard ESP Pa	25	37	50	50	62	62
Condenser fan at nominal airflow	Airflow m ³ /h	2 380	3 450	4 350	5 255	5 200	6 400
	Standard ESP Pa	50	50	50	50	50	50
Nett dimensions	Height mm	478	555	555	585	640	640
	Length mm	1 100	1 150	1 310	1 570	1 750	1 750
	Depth mm	1 100	1 150	1 310	1 570	1 650	2 050
Nett weight	RTC kg	154	180	214	275	345	405
Nett weight	RTH kg	163	190	224	285	350	412

(1) For information only. These should be checked for compliance with local regulations depending also on installation and cable type

(2) Shield type cable only

All the data are at EUROVENT conditions with 230V/1/50Hz or 400V/3+N/50Hz.

Cooling : Entering indoor coil temp. 27°C / 19°C WB and outdoor temperature 35°C

Heating : Entering indoor coil temp. 20°C and outdoor temperature 7°C / 6°C WB

Compatibility table / Codes

Cooling only models		RTC 07 K	RTC 10 K	RTC 15 K	RTC 20 K	RTC 25 K	RTC 30 K		
	Code	661210787	661211086	661211587	661212088	661212586	661213086		
Heat pump models		RTH 07 K	RTH 10 K	RTH 15 K	RTH 20 K	RTH 25 K	RTH 30 K		
	Code	662050786	662051087	662051587	662052087	662052588	662053088		
Thermostat									
Delivered as standard with the unit		DPC-1							
Accessories or options									
	Remarks	Code		07	10	15	20	25	30
Electrical Heaters (in duct)	5 kW / 1ph.	611760561	A	●	●				
	5 kW / 3ph.	611760573		●	●				
	10 kW / 3ph.	611761083				●	●	●	●
	15 kW / 3ph.	611761513				●	●	●	●
	10 kW / 3ph.	611761033		●	●				
Low ambient regulation		613111531	0	●	●	●			
		613113085					●	●	●
Copper-copper coils unit			0	●	●	●	●	●	●
Anti-corrosion blue fin coil			0	●	●	●	●	●	●
A = Accessory (supplied loose) 0 = Option 0/A = If you want this item factory fitted, precise it in the order form									

AIR SYSTEMS

Rooftop Packaged air cooled

COMPACT SOLUTION FOR OUTDOOR APPLICATIONS!

R407C

- YKlon board
- Duct work configuration side or down flow
- Cooling, heat pump, gas and electric heating
- Compact and with proven reliability
- Wide range of accessories
- Suitable for use in harsh climates

***New version 5 range
for 090 and 120 sizes !***

Model 300 on picture



R407C

Rooftop

24 to 90 kW



Technical features

Cooling only models		D51C 090G	D51C 120G	D51C 150G	D51C 180G	D51C 240G	D51C 300G		
Net cooling capacities (1)	kW	25.30	32.00	40.20	46.60	61.50	88.00		
Power input (2)	kW	10.40	12.80	17.10	18.10	23.50	38.00		
Heat pump models		B51H 090G	B51H 120G	B51H 150G	B51H 180G	B51H 240G	B51H 300G		
Net cooling capacities (1)	kW	23.20	31.00	37.0	46.50	58.30	86.60		
Power input in cooling (2)	kW	9.80	12.80	16.0	17.20	23.70	38.70		
Heating capacities	kW	24.30	32.30	40.3	50.60	70.00	80.00		
Power input in heating	kW	8.20	10.40	14.5	18.20	24.10	33.30		
Cooling only + Gas heating		D51G 090G	D51G 120G	D51G 150G	D51G 180G	D51G 240G	D51G 300G		
Net cooling capacities (1)	kW	25.30	32.00	40.20	46.60	61.50	88.00		
Cooling power input (2)	kW	10.40	12.80	17.10	18.10	23.50	38.00		
Standard Heating capacities (3)	kW	47.5 + 1.5	57 + 2.2	57 + 4	76 + 4	76 + 5.5	76 + 9.2		
Natural gas 2ND-H, G20	m³/h	5.4	6.5	6.5	8.6	8.6	8.6		
High Heating capacities (3)	kW	-	-	-	90 + 4 (*)	90 + 5.5	90 + 9.2		
Natural gas 2ND-H, G20	m³/h	-	-	-	9.75	9.75	9.75		
Power supply		400V/3 + N/ 50Hz							
Main switch (4)	A	32	32	50	50	63	80		
Main cable (4)	Nbr. x mm²	5 x 4	5 x 6	5 x 10	5 x 10	5 x 16	5 x 25		
Cable to thermostat (6)	Nbr. x mm²	10 x 0,22							
Number of circuits / Compressor type		2 x reciprocating			2 x scroll				
Technical characteristics for D_IC and D_IG									
Ambient outdoor side sound power level		dB(A)	87	87	88	90	91		
Ambient outdoor side sound pressure level at 5 m		dB(A)	59	59	61	68	69		
In duct indoor side sound power level		dB(A)	81	83	84	82	87		
Nominal / Starting current		A	19.9 / 76	24.3 / 83	32 / 99	36 / 127	46 / 127	73 / 198	
Evaporator fan (5) at nominal airflow	Airflow	m³/h	5 100	6 800	8 640	10 000	13 700	17 000	
	Standard ESP	Pa	170	275	183	405	315	116	
	ESP with HSD	Pa	Consult us			>450	>450	>450	392
	Power input	kW	1.5	2.2	4	4	5.5	9.2	
	Drive		Pulley-belts (6-turn adjustable pulley)						
Nett dimensions	Height	mm	855	1 007	1 210	1 235	1 337	1 337	
	Length	mm	2 552	2 552	2 552	3 180	3 460	3 460	
	Depth	mm	1 800	1 800	1 800	2 337	2 337	2 337	
Nett weight DIC / DIG		kg	437 / 472	472 / 537	590 / 642	860 / 970	957 / 1 066	1 238 / 1 353	
Technical characteristics for B_IH									
Ambient outdoor side sound power level		dB(A)	83	83	83	91	91	92	
Ambient outdoor side sound pressure level at 5 m		dB(A)	60	60	61	68	69	70	
In duct indoor side sound power level		dB(A)	79	79	79	84	87	88	
Nominal / Starting current		A	19.9 / 76	24.3 / 83	32 / 101	38 / 99	46 / 127	73 / 198	
Evaporator fan at nominal airflow (5)	Airflow	m³/h	5 100	6 800	8 640	10 000	13 700	17 000	
	Standard ESP	Pa	110	125	135	325	300	116	
	ESP With HSD	Pa	Consult us			410	435	370	392
	Power input	kW	1.5	2.2	4	4	5.5	9.2	
	Drive		Pulley-belts (6 turn adjustable pulley)						
Nett dimensions	Height	mm	855	1 210	1 210	1 235	1 337	1 337	
	Length	mm	2 552	2 552	2 552	3 180	3 460	3 460	
	Depth	mm	1 800	1 800	1 800	2 337	2 337	2 337	
Nett weight BIH		kg	477	637	743	953	1 043	1 279	

(1) : Add evaporator fan motor input to get Gross capacity

(2) : including evaporator fan motor

(3) : net heating capacity + indoor fan power input

(4) : For information only. They should be checked to comply local norms and regulations depending also on installation and conductor type

All data are at Eurovent conditions

(5) : ESP = External static pressure HSD = High speed drive

(6) : Shield type cable only

(*) : Indoor air flow should be set at least at 10.000 m³/h

Codes

Cooling only models		D51C 090 G50	D51C 120 G50	D51C 150 G50	D51C 180 G50	D51C 240 G50	D51C 300 G50
Code		661750903	661751203	661751503	661751803	661752403	661753003
Heat pump models		B51H 090 G50	B51H 120 G50	B51H 150 G50	B51H 180 G50	B51H 240 G50	B51H 300 G50
Code		661940903	661941203	661941503	661941903	661942503	661943003
Cooling only + gas models		D51G 090 G16550	D51G 120 G20050	D51G 150 G20050	D51G 180 G32050	D51G 240 G32050	D51G 300 G32050
Code		661760903	661761203	661761503	661761803	661762403	661763003
Thermostat		DPC-1					

Accessories or options

Accessories or options		Code	Option/Accessory	
Dry bulb triple input economizer or motorized air damper with rain hood		613991582	0	
		613991889		
		613993082		
Enthalpy probes *		613990081	0	
Indoor air quality sensor *		606819964	O/A	
Power Exhaust *		613994582	A	
		613995081		
		613996085		
Barometric relief damper and rain hood		613990485	A	
		613990486		
Fresh air or barometric damper and rain hood		613990483	A	
Fresh air damper and rain hood		613990484		
High speed drive	NEW !	611991281	0	
		611991581		
		611991881		
		611992482		
		611993082		
Low ambient control	NEW !	613190150	0	
		613118300		
Copper-copper coil		-	0	
Anti-corrosion blue fin coil		-	0	
Side duct flanges		613991480	A	
		613991481		
Fixed roof curb		613991881	A	
		613991884		
		613991885		
Adjustable roof curb		613992080	A	
		613992081		
		613992082		
Filter dirty switch		613990084		
Smoke detector (for multiple units, consult YORK office)		613995381	0	
Fire detection thermostat		613903002	0	
Hot water coil with control	NEW !	611083551	0	
		611083151		
		611083251		
Electric heaters	16 kW	611761582	0	
	25 kW	611762282		
	37 kW	611763382		
	12 kW	611761583		
	25 kW	611762283		
	37 kW	611763383		
	50 kW	611764483		
Propane conversion Kit		611801780	A	
High heat gas conversion kit		611803080	A	
Washable air Filter (1)	NEW !	611300980	0	
		611301281		
		611301580		
		611301880		
		611302480		
		611303080		

0 = Option (factory fitted) A = Accessory (supplied loose) O/A = If you want this item factory fitted, precise it in the order form

● = Available

* It is mandatory to order the economizer with this item (1) Removable media filter standard with version 5

Rooftop

24 to 90 kW

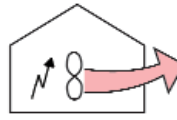
	Cooling only						Heat pump						Cooling and gas					
	90	120	150	180	240	300	90	120	150	180	240	300	90	120	150	180	240	300
	●	●	●				●	●	●				●	●	●			
				●						●						●		
					●	●					●	●					●	●
	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	●	●	●				●	●	●				●	●	●			
				●						●						●		
					●	●					●	●					●	●
				●						●						●		
					●	●					●	●					●	●
	●	●	●				●	●	●				●	●	●			
				●	●	●				●	●	●				●	●	●
		●						●						●				
			●						●						●			
				●						●						●		
					●						●						●	
						●												●
	●	●	●				●	●	●				●	●	●			
				●	●	●				●	●	●				●	●	●
	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
				●						●						●		
	●	●	●				●	●	●				●	●	●			
				●						●						●		
					●	●					●	●					●	●
	●	●	●				●	●	●									
	●	●	●				●	●	●									
		●	●					●	●					●	●			
				●	●	●				●	●	●				●	●	●
				●	●	●				●	●	●						
				●	●	●				●	●	●						
				●	●	●				●	●	●						
													●	●	●	●	●	●
																●	●	●
	●						●						●					
		●												●				
			●					●	●						●			
				●						●						●		
					●			●			●						●	
						●						●						●

Accessories or options



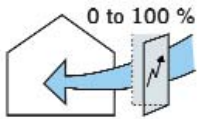
Triple input economizer :

This system utilizes 3 probes: Return Air, Outdoor Air and Supply Air. The Outdoor Air damper and the Return Air dampers are mechanically interconnected in order to provide the same airflow at the coil inlet, with a single damper motor. The PCB compares sensor values and modulates the dampers providing maximum efficiency of the economiser system (free cooling) and comfort (Supply Air > 12°C). Combined with the air quality sensor, your payback will be ensured within few months. The rain hood is painted to match the basic unit and aluminium mesh pre-filter prevents water penetration.



Power Exhaust :

Used to mechanically relieve internal air pressure from the Return Air section and ensure efficient fresh air introduction on units equipped with triple input economiser or motorised air damper. The power exhaust fan motor works when enough Outdoor Air is blowing into the room and if Outdoor Air temperature is acceptable ($12^{\circ}\text{C} < t^{\circ} < 30^{\circ}\text{C}$).



Motorised outdoor air damper :

Equipped with the same dampers as the economizer, the Return Air probe is not used. Outdoor air damper opens to pre-set position whenever the indoor fan is operating (selected from the thermostat, the indoor fan can be activated with the compressor or to operate continuously) and will drive fully closed when the indoor fan shuts down. The rain hood is painted to match the basic unit and aluminium mesh pre-filter prevents water penetration.



High speed drive :

Available for models 180, 240 and 300, the high speed drive will increase the supply fan performance for applications with a greater air flow and/or static pressure. Please consult technical guide for more information.



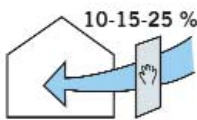
Low ambient control :

All our rooftops are designed to work in cooling mode down to 7°C ambient temperatures and -4°C for DIC/DIG 180 to 300. Although this working range suits most applications, the units can operate correctly down to -18°C with optional low ambient control.



Enthalpy sensors :

To control the economizer in humid areas, or when indoor air humidity needs to remain dry, you should select enthalpy regulation. Enthalpy sensors will be used with the triple input economizer.



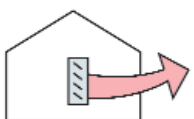
Fresh air damper and rain hood :

The most cost effective method with a complete rain hood and a fixed damper that can be adjusted to provide approximately 10, 15 or 25% of fresh air.



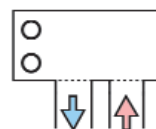
Indoor air quality :

This sensor measures concentrations of pollutant gases, such as tobacco smoke, human body odours, kitchen odours, carbon monoxide, etc... It automatically overrides the economizer when pollutant levels rise above preset limits. A shorting plug will set the algorithm to acceptable, good or very good air quality. This VOC sensor (Volatile Organic Compounds) sends an ON/OFF signal to the control PCB. The YKlon will then adjust the fresh air damper, optimising indoor air quality and minimising the energy consumption.



Barometric relief damper :

This accessory can be used to relieve internal air pressure on units equipped with triple input economiser or motorised air damper but no power exhaust. When the rooftop is working in free cooling or introducing fresh air, the damper opens to relieve over pressure from the return air section. This accessory is comprised of a rain hood, a protective grille and a fully assembled damper.

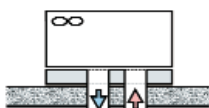


Side duct flanges :

Fitted as standard on units 90, 120 and 150, this accessory is composed of easy to install sheet metal panels to allow ductwork connections on the side of the AHU for horizontal return air and/or supply air.

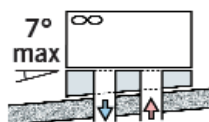
Rooftop

24 to 90 kW



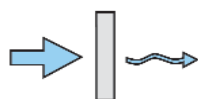
Fixed roof curbs :

Ideal for down-flow applications, it is a great help for installation allowing duct connections, electrical connection and weatherproofing between the roofcurb and the roof of the building. Shipped in kit form, it also gives sufficient height for condensate trap operation.



Adjustable roof curbs :

With the same benefits as the fixed roof curb, it allows the rooftop to be levelled on a roof with up to 7° slope (4%).



Filter dirty switch :

Ensures that clean air is being supplied, advises when maintenance is required to prevent excessive depression and ensures water integrity of the AHU. These are the main advantages of filter dirty switch.

Connected with the DPC-1 thermostat, the filter icon will appear on the thermostat screen when a filter change is required.



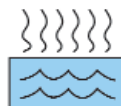
Smoke detector :

The smoke detector is protecting the AHU but must not be used to ensure a full building protection against smoke danger. If smoke is detected the AHU is shutdown (lockout). A manual reset is necessary.



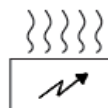
Fire detection thermostat :

This fire detection thermostat is protecting the AHU but must not be used to ensure a full building protection against fire danger. The standard AHU is protected as standard with a Supply Air probe that shuts the unit down (lockout) when temperature exceeds 80°C. The electro-mechanical fire detection thermostat is used to fulfil specific local requirement. A manual reset is necessary.



Hot water coil with control :

The hot water coil and his control are always fitted, wired and factory tested. Located in the supply air section, side or bottom duct connection is possible without any modification. Complete with an anti-frost thermostat, the PCB will activate the modulated valve (24V supply, 0 – 10V modulating signal) in order to get the best comfort. A jumper will allow using hot water coil as 1st heating stage.



Electrical heaters :

Available on cooling only and heat pump units, the electric heater is protected with two overheats per element. When the overheat operates, there is a lock out of the faulty electric heater stage and the PCB starts automatically another heat stage.

PROPANE



Kit conversion propane :

This kit comprises replacement burner, pilot injectors and all necessary instructions for converting the natural gas burner to propane gas. The nominal pressure of the propane gas should be 37 mbar.



High heat gas :

This kit comprises replacement burner injectors and all necessary instructions to provide high heat capacity for gas rooftop.



Washable air filter : (standard for version 5)

The Galvanised sheet metal frame permits cleaning of the synthetic fibre filter but also allows easily replacement of the media. Delivered with G3 class media in accordance with European standard EN-779 and F1 fire class in accordance with DIN53438, this is a good solution for a heavy maintenance site.

Large Rooftop Packaged air cooled

BIG IS NICE !

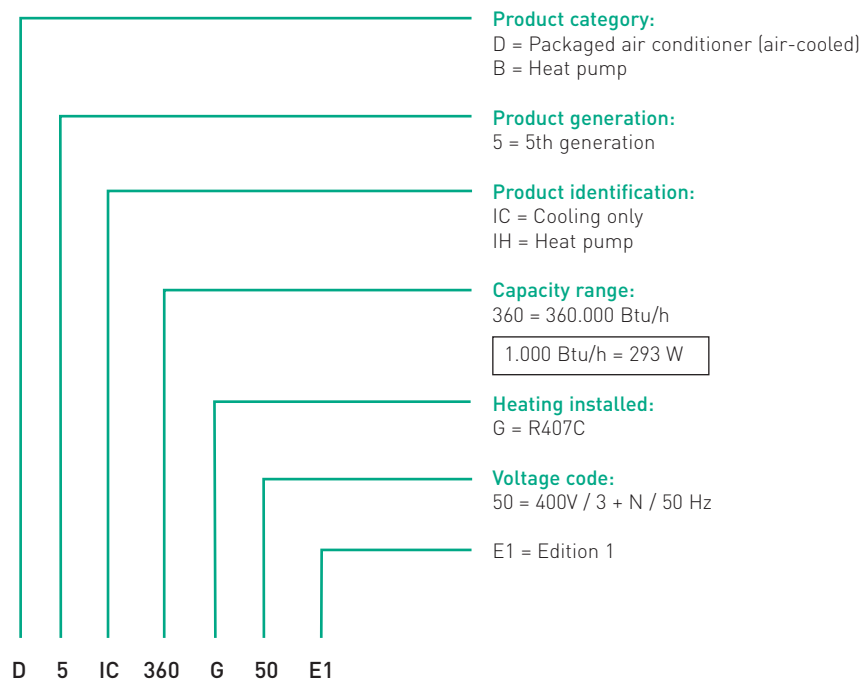
- YKlon board
- Duct work configuration side or down flow
- Cooling and heat pump models
- Compact unit
- Wide range of accessories
- Suitable for use in harsh climates

R407C



360-480

Product nomenclature



R407C

Large Rooftop

120 to 155 kW



Technical features

Models			D4IC 360 G	D4IC 480 G	B4IH 360 G	B4IH 480 G
Gross cooling capacities (1)		kW	119.1	155.6	115.1	151.0
Power input in cooling (2)		kW	31.4	37.2	32.0	44.5
Heating capacities		kW	-	-	127.1	163.3
Power input in heating		kW	-	-	41.9	56.7
Cooling capacities (3)		kW	111.6	144.6	107.6	140.0
Power input in cooling (3)		kW	42.4	52.2	43.0	59.5
Heating capacities (3)		kW	-	-	127.1	163.3
Power input in heating (3)		kW	-	-	41.9	56.7
Power supply			400V/3 + N/ 50Hz			
Nominal / Starting current		A	89 / 167	109 / 250	83 / 169	109 / 250
Main switch		A	125	160	125	160
Main cable		Nbr. x mm²	5 x 50	5 x 70	5 x 50	5 x 70
Cable to thermostat DPC		Nbr. x mm²	10 x 0,22 shield cable only			
Number of circuits			3	3	3	3
Evaporator fan at nominal airflow	Airflow	m³/h	21 000	25 000	21 000	25 000
	Standard ESP	Pa	250	250	250	250
	ESP with HSD	Pa	400 (Side duct connections) - 450 (Down duct connections)			
	Power input	kW	9.2	11	9.2	11
	Power input HSD	kW	11	15	11	15
	Drive		Pulley - Belt (6 turns adjustable)			
Nett dimensions	Height	mm	1.815			
	Length	mm	4.580			
	Depth	mm	2.200			
Nett weight		kg	2 010	2 295	2 060	2 350

(1) : without heat from evaporator fan motor (2) : without evaporator fan motor (3) : All the data are at EUROVENT conditions with 230V/1/50Hz or 400V/3+N/50Hz
Cooling : Entering indoor coil temp. 27°C / 19°C WB and outdoor temperature 35°C - Heating : Entering indoor coil temp. 20°C and outdoor temperature 7°C / 6°C WB

Compatibility table / Codes

Cooling only models	Code	D4IC 360 G		D4IC 480 G		
		661723623		661724823		
Heat pump models	Code	B4IH 360 G		B4IH 480 G		
		661923623		661924823		
Thermostat		DPC-1				
Accessories or options						
Models	Code		D4IC 360 G	D4IC 480 G	B4IH 360 G	B4IH 480 G
Dry bulb triple input economizer or motorized air damper with rain hood	613993601	0	●	●	●	●
Enthalpy probe *	613990081	0	●	●	●	●
Indoor air quality sensor *	606819964	O/A	●	●	●	●
Power exhaust *	613994880	A	●	●	●	●
Barometric relief damper + rain hood	613990471	A	●	●	●	●
Fresh air damper and rain hood	613990488	A	●	●	●	●
High speed drive 360	611993680	0	●	●	●	●
High speed drive 480	611994880	0	●	●	●	●
Low ambient control 360 and 480	613113680	0	●	●	●	●
Fixed roof curb	613991980	A	●	●	●	●
Hot water coil with control	611083651	0	●	●	●	●
Electric heater 37 kW (2 stages)	611763384	0	●	●	●	●
Electric heater 50 kW (2 stages)	611764484	0	●	●	●	●
Washable air filter set G4 (EU4)	611303680	0	●	●	●	●
Dirty filter switch	613990084	0	●	●	●	●
	613990085	0	●	●	●	●
	613990086	0	●	●	●	●
Smoke detector	613995381	0	●	●	●	●
Fire detection thermostat	613903002	0	●	●	●	●
Adjustable roof curb	613992083	A	●	●	●	●
O = Option (factory fitted) A = Accessory (supplied loose) O/A = If you want this item factory fitted, precise it in the order form						
● = Available * = It is mandatory to order the economizer with this item						

Large Rooftop details



Electrical compartment

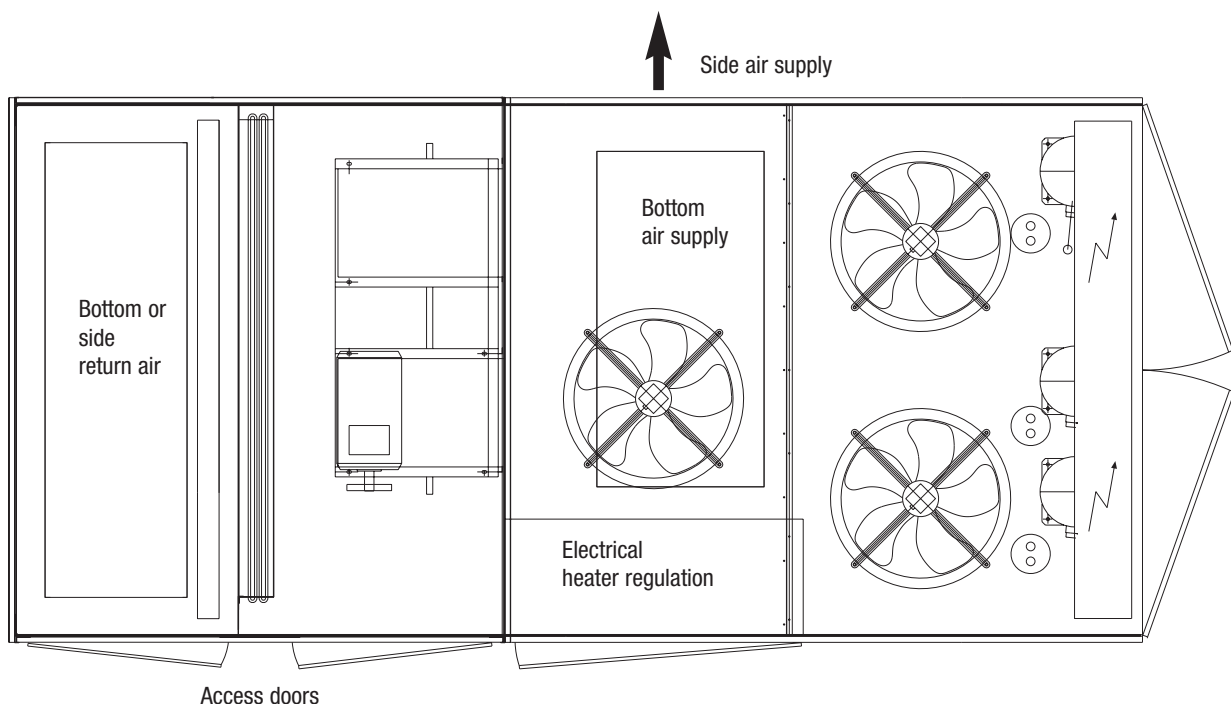
- Scroll compressors
- Excellent maintenance access
- Enclosed insulated cabinet and scroll compressors for quiet operation
- YKLon PCB and Digital Programmable with communication thermostat



- Solid base frame
- Rigid lifting points

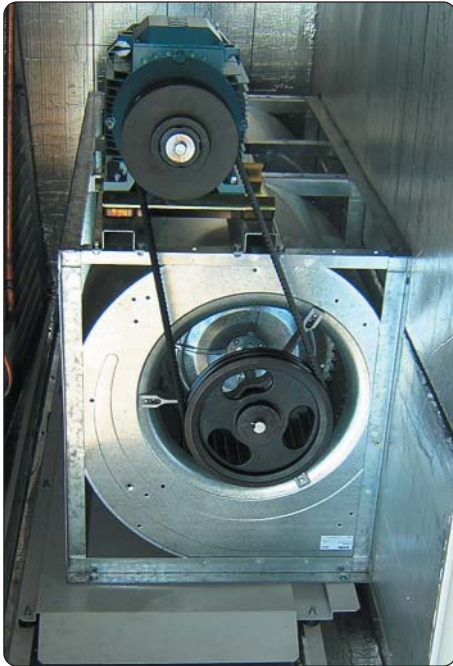


- Low noise outdoor fan



Large Rooftop

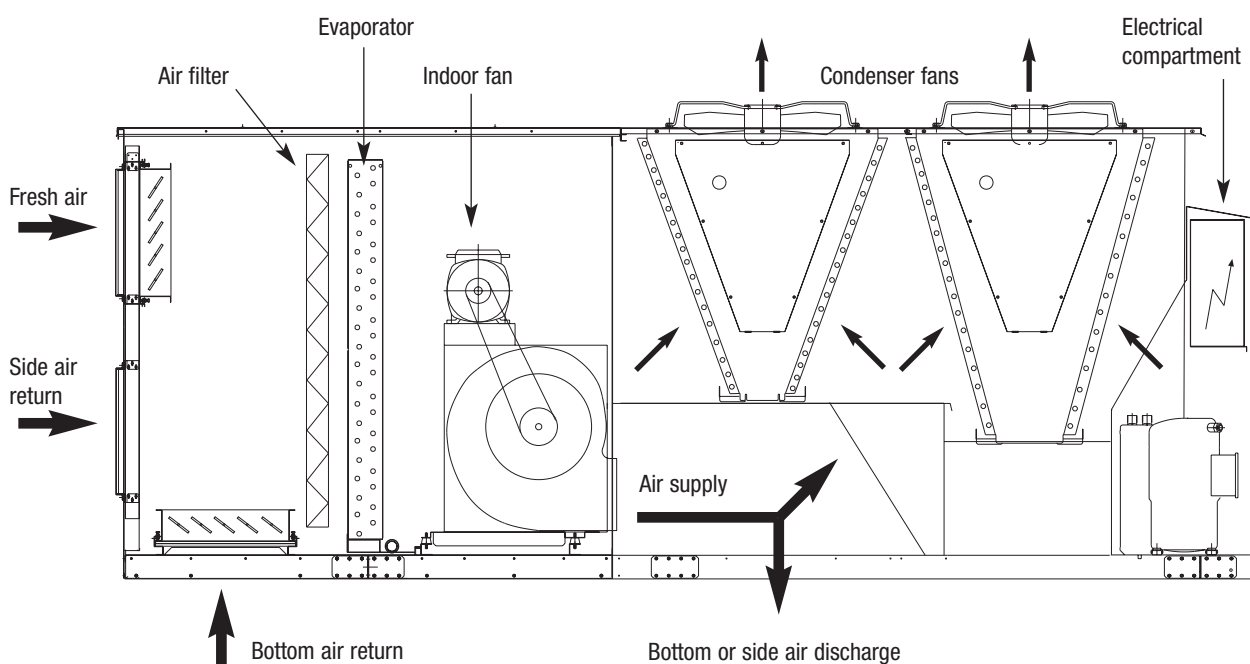
120 to 155 kW



- Easy access through doors
- Fan set on antivibration bushes
- Foil-faced insulation cleanable and hygienic
- Large space for maintenance
- G3 (EU3) metallic frame air filter



- Vertical / horizontal panel junction water proof
- 1/4 turn lock on all doors



Large Split

Condensing unit (Axial fan) / Ductable air handling unit

YOUR SOLUTION FOR OUTDOOR APPLICATIONS !

- YKlon board
- Low ambient control as standard
- Scroll compressors
- Digital thermostat included
- LED fault diagnosis with remote alarm
- "Quick connect" accessories
- Two levels of safety: Lockout & incident
- Adjustable parameters with dip switches
- New packing allows stacking on stock of the units (76 to 120 models only)
- Improve condenser coil protection (76 to 120 models only)

R407C



SOC-SOH 076-090



SOC-SOH 120-180



SOC-SOH 240

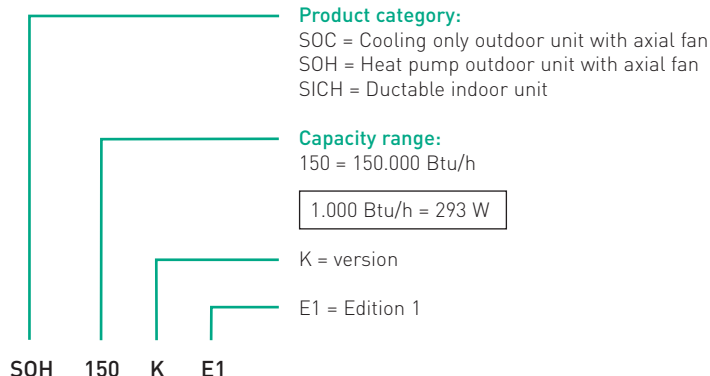


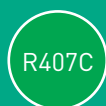
SOH 300



SICH 076-300

Product nomenclature





Large Split

20 to 70 kW



Compatibility table / Codes

BLOWERS											
Cooling only & heat pump		Code		SICH 076 B	SICH 090 B	SICH 120 B	SICH 150 B	SICH 180 B	SICH 240 C	SIH 300 B	
				662562524	662564024	662564024	662564524	662566034	662568034	662561024	
CONDENSING UNITS											
Cooling only models		Code		SOC 076 K	SOC 090 K	SOC 120 K	SOC 150 K	SOC 180 K	SOC 240 K		
				661502683	661503185	661504183	661504683	661506184	661508086		
Heat pump models		Code		SOH 076 K	SOH 090 K	SOH 120 K	SOH 150 K	SOH 180 K	SOH 240 K	SOH 300 K	
				662512784	662513282	662514187	662514783	662516284	662518382	662511182	
Thermostat											
Delivered with the unit			DPC-1								
Accessories or options for outdoor units											
			Code		076	090	120	150	180	240	300
Low speed condenser motor			613119011	0	●	●					
			613119201				●	●	●		
			613119401							●	●
Copper-copper coil				0	●	●	●	●	●	●	●
Anti-corrosion blue fin coil				0	●	●	●	●	●	●	●
Accessories or options for indoor units											
Remarks		Code		076	090	120	150	180	240	300	
High speed drive		603761161	0	●							
		603761163			●	●					
		603761162					●				
		603761120						●			
		611998081							●		
Electrical Heaters (Inside the unit)	10 kW	611763544	O/A	●							
	15 kW	611763644		●							
	10 kW	611761554			●	●					
	20 kW	611761644			●	●					
	15 kW	611761734					●				
	30 kW	611761834					●				
	15 kW	611762024						●			
	30 kW	611763024						●			
Electrical Heaters (in duct)	30 kW	611763025 (1)	0						●		
	10 kW	613761013	A	●							
	15 kW	613761513		●							
	20 kW	613762013			●	●	●	●	●		
	30 kW	613763013			●	●	●	●	●		
Hot water coil only		611082510	0	●							
		611083010			●	●					
		611084510					●				
Vertical discharge Kit		669482038	0					●			
		669488002							●		
Copper-copper coil			0	●	●	●	●	●	●	●	
Anti-corrosion blue fin coil			0	●	●	●	●	●	●	●	
O = Option (factory fitted). A = Accessory (supplied loose). O/A = If you want this item factory fitted, precise it in the order form ● = Available (1) Factory fitted, for horizontal airflow only.											

Technical data

Indoor units

Cooling only and heat pump	SICH	76	90	120	150	180	240	300
----------------------------	------	----	----	-----	-----	-----	-----	-----

Outdoor units

Cooling only models		SOC	76	90	120	150	180	240	
Cooling capacities	kW		22.00	29.00	33.40	41.80	53.00	68.00	
Power input in cooling	kW		7.89	11.00	14.00	17.00	19.40	28.00	
Refrigerant charge on site for 7 m piping length	kg		6.6	8.5	11.2	6.7 x 2	8.7 x 2	9 x 2	
Heat pump models		SOH	76	90	120	150	180	240	300
Cooling capacities	kW		22.00	29.00	33.40	38.50	54.00	68.00	77.00
Power input in cooling	kW		7.91	11.00	13.80	16.0	20.80	28.00	30.30
Heating capacities	kW		23.00	30.00	34.00	43.00	55.50	67.80	85.00
Power input in heating	kW		6.30	8.65	12.10	15.0	19.40	22.30	31.50
Refrigerant charge on site for 7 m piping length	kg		9.7	11.9	13	9.8 x 2	11.5 x 2	12 x 2	
Ambient outdoor side sound power level SOC / SOH dB(A)			73 / 74	79 / 79	77 / 79	85 / 85	86 / 83	82 / 82	
Ambient outdoor side sound pressure level at 5 m SOC / SOH dB(A)			51 / 52	57 / 57	55 / 57	63 / 63	64 / 61	60 / 60	
In duct indoor side sound power level dB(A)			81	77	77	85	86	86	
Power supply			400V/3 + N/ 50Hz						
Nominal / Starting current	A		17/ 99	23/ 134	28/ 167	31/ 2 x 99	44/ 2 x 134	56/ 2 x 167	
Main switch (1)	A		25	32	40	50	63	80	
Main cable to the outdoor unit (1)	Nbr x mm ²		5 x 4	5 x 6	5 x 10	5 x 10	5 x 16	5 x 25	
Interconnecting cable (1)	Nbr x mm ²		4 x 1,5	4 x 1,5	4 x 1,5	4 x 1,5	4 x 1,5	4 x 1,5	
Cable to standard thermostat (2)	Nbr x mm ²		10 x 0,22						
Insulated refrigerant piping	Suction		1 1/8"	1 1/8"	1 1/8"	2 x 1 1/8"	2 x 1 1/8"	2 x 1 3/8"	
	Liquid		1/2"	5/8"	5/8"	2 x 1/2"	2 x 5/8"	2 x 7/8"	
Evaporator fan SICH at nominal airflow (3)	Airflow	m ³ /h	4 615	7 850	7 850	10 700	13 600	16 500	
	Standard ESP	Pa	62	75	75	75	80	80	
	ESP With HSD	Pa	206	214	206	162	230	196	
Nett dimensions outdoor	Height	mm	982	1 134	1 134	1 134	1 185	1 134	
	Length	mm	1 240	1 240	1 240	1 240	1 240	1 975	
	Depth	mm	880	880	1 630	1 630	1 630	1 630	
Nett dimensions indoor	Height	mm	590	663	663	663	762	838	
	Length	mm	1 357	1 738	1 738	2 038	2 239	2 639	
	Depth	mm	725	725	725	725	777	857	
Nett weight	SOC	kg	206	216	318	410	424	542	
	SOH	kg	240	254	332	452	480	612	
	SICH	kg	120	165	165	195	240	310	

(1) For information only. These should be checked for compliance with local regulations depending also on installation and conductor type.

(2) Shield type cable only. (3) ESP = External static pressure HSD = High speed drive

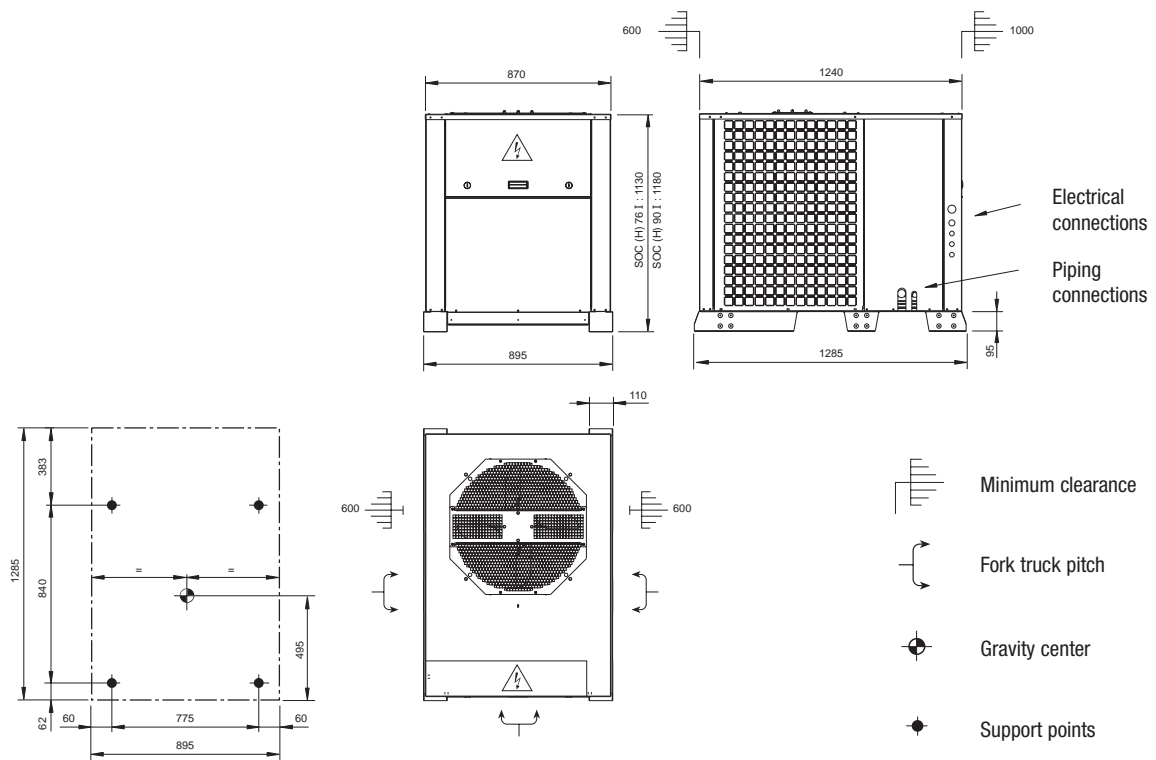
All the data are at EUROVENT conditions with 230V/1/50Hz or 400V/3+N/50Hz.

Cooling : Entering indoor coil temp. 27°C / 19°C WB and outdoor temperature 35°C

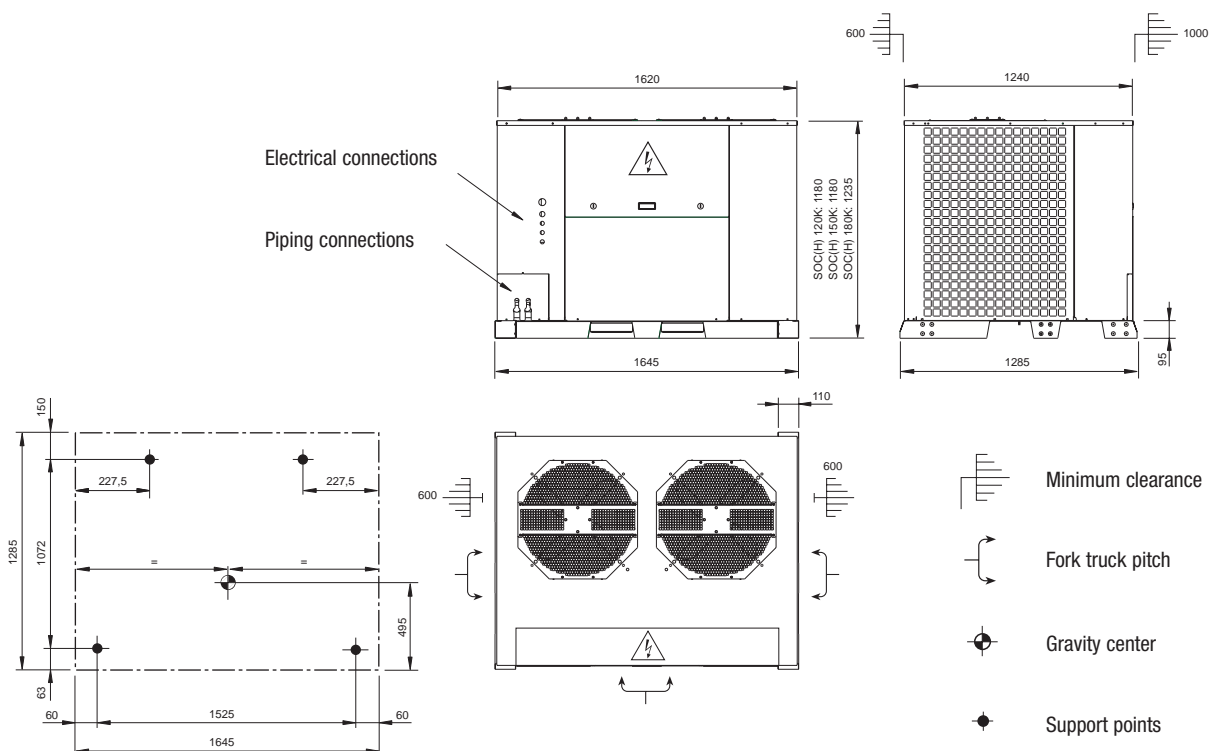
Heating : Entering indoor coil temp. 20°C and outdoor temperature 7°C / 6°C WB

Dimensions and space requirements for outdoor units

SOC-SOH 76-90 K

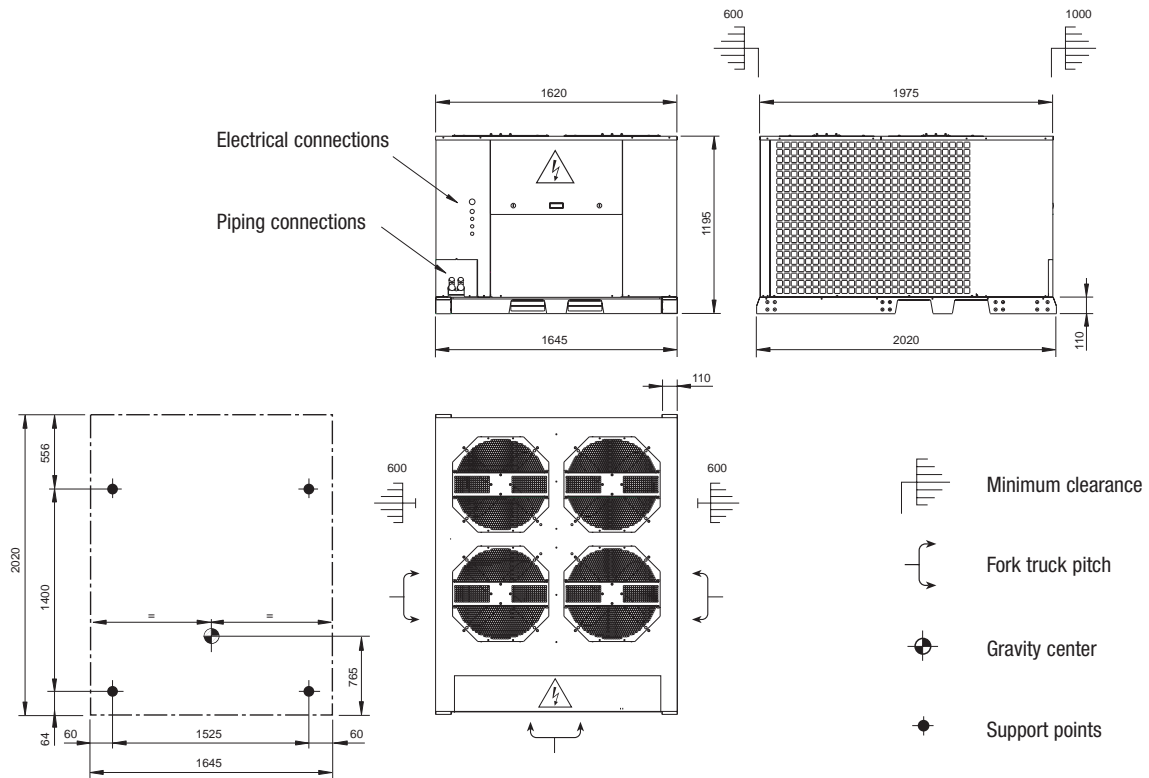


SOC-SOH 120-150-180 K



Dimensions and space requirements for outdoor units

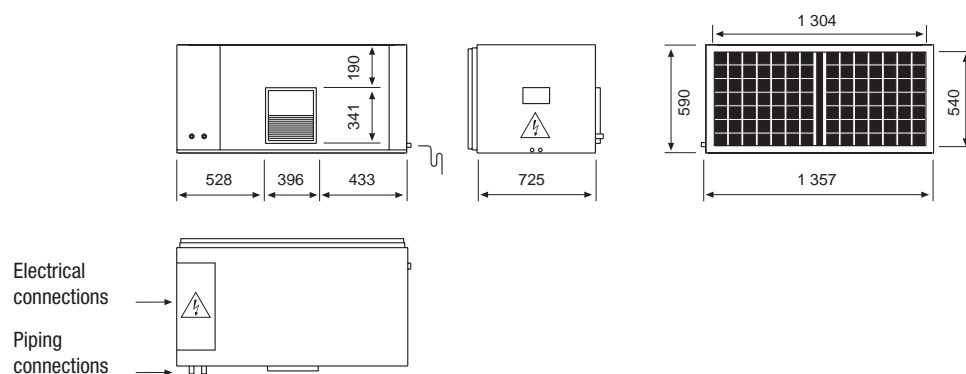
SOC-SOH 240 K



SOH 300 K

Dimensions indoor units

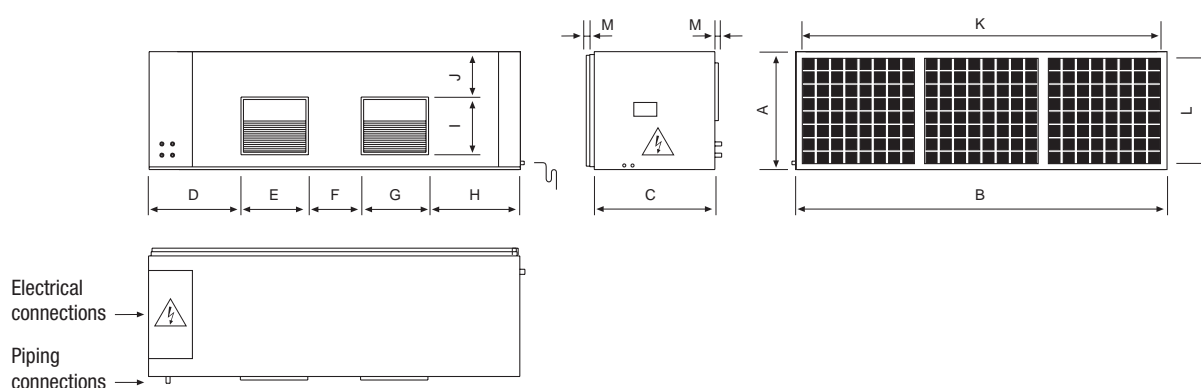
SICH 70-76



SICH 90-120-150

All dimensions in mm

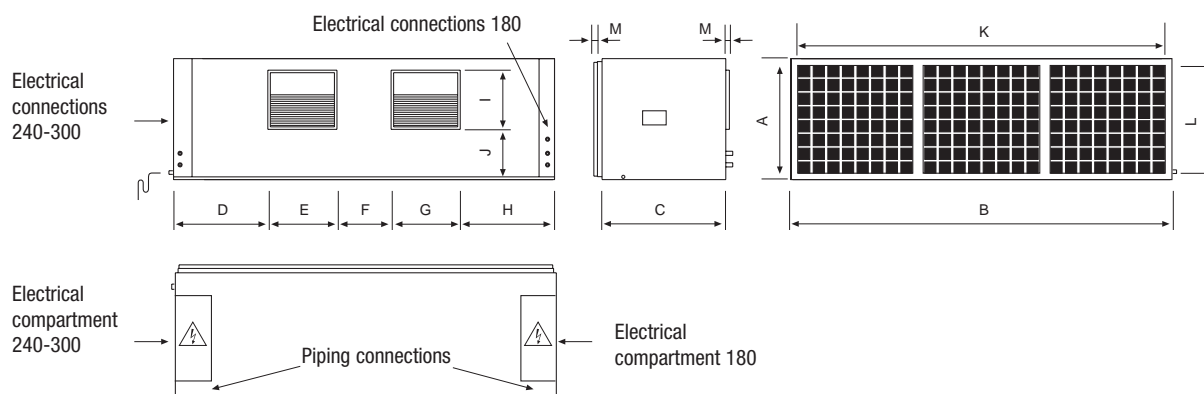
	A	B	C	D	E	F	G	H	I	J	K	L	M
SICH 90	663	1 738	725	470	311	321	311	325	341	263	1 685	616	25
SICH 120	663	1 738	725	470	311	321	311	325	341	263	1 685	616	25
SICH 150	663	2 038	725	510	396	321	396	415	341	263	1 985	613	25



SICH 180-240-300

All dimensions in mm

	A	B	C	D	E	F	G	H	I	J	K	L	M
SICH 180	762	2 239	777	563	396	321	396	563	341	341	2 186	709	25
SICH 240	838	2 639	857	653	479	375	479	653	470	348	2 589	788	25
SIH 300	838	2 639	857	653	479	375	479	653	470	348	2 589	788	25



Large Split or Monobloc

Condensing unit (Centrifugal fan) / Ductable air handling unit

YOUR SOLUTION FOR INDOOR APPLICATIONS !

- YKlon board
- Low ambient control as standard
- Scroll compressors
- Digital thermostat included
- LED fault diagnosis with remote alarm
- "Quick connect" accessories
- Two levels of safety: Lockout & incident
- Adjustable parameters with dip switches
- New packing allows stacking on stock of the units (76 to 120 models only)
- Improve condenser coil protection (76 to 120 models only)

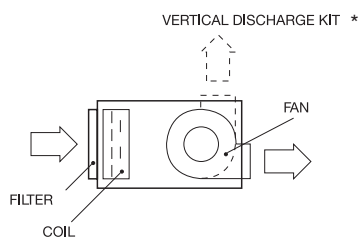
R407C



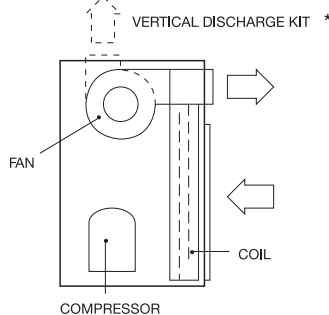
SCOC-SCOH 070-300
SICH 070-300

Schema

Indoor unit
SICH



Outdoor unit
SCOC-SCOH



➡ Standard air flow ➡ Accessory supplied loose

* From 70 to 150 models, transformation can be made on site without accessories

Product nomenclature

Product category:

SCOC = Cooling only outdoor unit with centrifugal fan
SCOH = Heat pump outdoor unit with centrifugal fan
SICH = Ductable indoor unit

Capacity range:

120 = 120.000 Btu/h

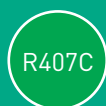
1.000 Btu/h = 293 W

K = version

E1 = Edition 1

SCOH 120 K E1





Large Split

18 to 90 kW



Compatibility table / Codes

BLOWERS											
Cooling only and heat pump models		SICH 070 B	SICH 076 B	SICH 090 B	SICH 120 B	SICH 150 B	SICH 180 B	SICH 240 C	SIH 300 B		
	Code	662562524	662562524	662564024	662564024	662564524	662566034	662568034	662561024		
CONDENSING UNITS											
Cooling only models		-	SCOC 076 K	SCOC 090 K	-	SCOC 150 K	SCOC 180 K	-	-		
	Code		661502588	661503182		661504580	661506183				
Heat pump models		SCOH 070 K	SCOH 076 K	SCOH 090 K	SCOH 120 K	SCOH 150 K	SCOH 180 K	SCOH 240 K	SCOH 300 K		
	Code	662512180	662512780	662513281	662514280	662514781	662516283	662518381	662511180		
Thermostat											
Delivered as standard with the unit		DPC-1									
Accessories or options for outdoor units											
		Code		070	076	090	120	150	180	240	300
Low ambient regulation		613112581	0	●	●						
		613114081				●	●				
		613114581						●			
		613116082							●		
		613111081								●	●
Copper-copper coil			0	●	●	●	●	●	●	●	●
Anti-corrosion blue fin coil			0	●	●	●	●	●	●	●	●
Vertical discharge kit		612822105	A	●	●						
		612823105				●	●				
		612824605						●			
		612826105							●		
		612828105								●	●
Accessories or options for indoor units											
Remarks		Code		070	076	090	120	150	180	240	300
High speed drive		603761161	0	●	●						
		603761163				●	●				
		603761162						●			
		603761120							●		
		611998081								●	
		611991081									●
Electrical Heaters (Inside the unit)	10 kW	611763544	O/A	●	●						
	15 kW	611763644		●	●						
	10 kW	611761554				●	●				
	20 kW	611761644				●	●				
	15 kW	611761734						●			
	30 kW	611761834						●			
	15 kW	611762024							●		
	30 kW	611763024								●	
	30 kW	611763025 (1)		0							●
40 kW	611764525 (1)									●	
Electrical Heaters (in duct)	10 kW	613761043	A	●	●						
	15 kW	613761543		●	●						
	20 kW	613762043				●	●	●	●	●	●
	30 kW	613763043				●	●	●	●	●	●
Hot water coil only		611082510	0	●	●						
		611083010				●	●				
		611084510						●			
Vertical discharge Kit		669482038	0						●		
		669488002								●	
		669481002									●
Copper-copper coil			0	●	●	●	●	●	●	●	●
Anti-corrosion blue fin coil			0	●	●	●	●	●	●	●	●
O = Option (factory fitted). A = Accessory (supplied loose). O/A = If you want this item factory fitted, precise it in the order form. ● = Available (1) Factory fitted, for horizontal airflow only.											

Technical data

Indoor units

Cooling only and heat pump	SICH	70	76	90	120	150	180	240	300
----------------------------	------	----	----	----	-----	-----	-----	-----	-----

Outdoor units

Cooling only models		SCOC	---	76	90	---	150	180	---	---
Cooling capacities	kW			21,00	29,00		40,00	54,00		
Power input in cooling	kW			9,01	13,20		19,10	27,00		
Refrigerant charge on site for 7m piping length	Kg			8,7	13,8		9,4 x 2	9 x 2		
Heat pump models		SCOH	70	76	90	120	150	180	240	300
Cooling capacities	kW		18,60	21,00	30,00	33,30	39,50	54,00	69,00	86,00
Power input in cooling	kW		6,40	8,80	11,70	13,90	18,90	26,40	31,30	35,00
Heating capacities	kW		18,60	22,30	33,50	34,40	44,00	56,00	69,00	88,00
Power input in heating	kW		6,00	5,50	12,80	12,10	15,80	26,40	31,30	32,60
Refrigerant charge on site for 7m piping length	Kg		8,4	8,7	13,8	13	9,4 x 2	9 x 2	13 x 2	16 x 2
In duct outdoor side sound power level SCOC / SCOH	dB(A)		- / 71	79 / 74	79 / 77	- / 91	78 / 78	80 / 80	- / 80	- / 80
In duct indoor side sound power level	dB(A)		81	81 / 70	81 / 77	84	85	86	86	86
Power supply			400V/3 + N/ 50Hz							
Nominal / Starting current	A		17 / 99	20 / 123	24 / 134	29 / 167	37 / 2 x 99	49 / 2 x 134	59 / 2 x 167	76 / 2 x 189
Main switch (1)	A		20	25	32	40	50	63	80	100
Main cable to the outdoor unit (1)	Nbr x mm ²		5 x 4	5 x 4	5 x 6	5 x 10	5 x 10	5 x 16	5 x 25	5 x 35
Interconnecting cable (1)	Nbr x mm ²		4 x 1,5	4 x 1,5	4 x 1,5	4 x 1,5	4 x 1,5	4 x 1,5	4 x 1,5	4 x 2,5
Cable to standard thermostat (1) (2)	Nbr x mm ²		10 x 0,22							
Insulated refrigerant piping	Suction		1 1/8"	1 1/8"	1 1/8"	1 1/8"	2 x 1 1/8"	2 x 1 1/8"	2 x 1 3/8"	2 x 1 3/8"
	Liquid		1/2"	1/2"	5/8"	5/8"	2 x 1/2"	2 x 5/8"	2 x 7/8"	2 x 7/8"
Evaporator fan SICH at nominal airflow (3)	Airflow	m ³ /h	4 615	4 615	7 850	7 850	10 700	13 600	16 500	19 500
	Standard ESP	Pa	62	62	75	75	75	80	80	80
	ESP With HSD	Pa	206	206	214	206	162	230	196	201
Condenser fan at nominal airflow	Airflow	m ³ /h	6 300	6 300	11 520	11 520	12 600	18 000	23 400	23 400
	Standard ESP	Pa	50	50	50	50	50	50	50	50
	ESP With HSD	Pa	206	206	214	206	162	230	196	201
Nett dimensions outdoor	Height	mm	1 392	1 392	1 526	1 526	1 592	1 641	1 794	1 794
	Length	mm	1 360	1 360	1 738	1 738	2 040	2 239	2 639	2 639
	Depth	mm	728	728	725	725	728	777	857	857
Nett dimensions indoor	Height	mm	590	590	663	663	663	762	838	838
	Length	mm	1 357	1 357	1 738	1 738	2 038	2 239	2 639	2 639
	Depth	mm	725	725	725	725	725	777	857	857
Nett weight	SCOC	kg	-	315	370	-	555	645	-	-
	SCOH	kg	305	325	375	385	560	650	720	750
	SICH	kg	120	120	165	165	195	240	310	310

(1) For information only. These should be checked for compliance with local regulations depending also on installation and conductor type.

(2) Shield type cable will have a better insulation against electromagnetic interference. It is recommended for sensitive sites and for communications.

(3) ESP = External static pressure HSD = High speed drive

All the data are at EUROVENT conditions with 230V/1/50Hz or 400V/3+N/50Hz.

Cooling : Entering indoor coil temp. 27°C / 19°C WB and outdoor temperature 35°C

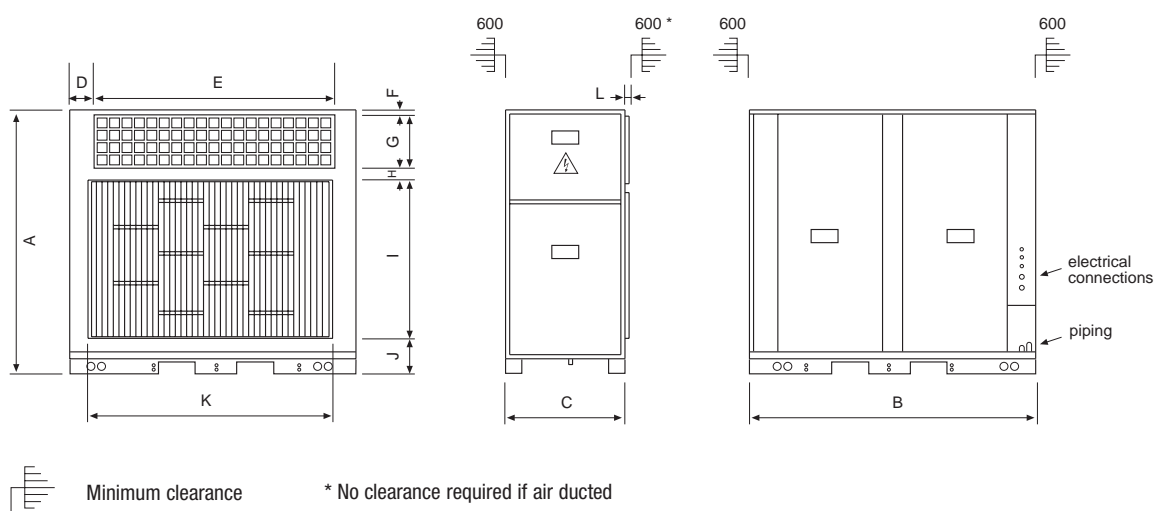
Heating : Entering indoor coil temp. 20°C and outdoor temperature 7°C / 6°C WB

Dimensions and space requirements for outdoor units

SCOC-SCOH 70-76-90-120

All dimensions in mm

	A	B	C	D	E	F	G	H	I	J	K	L
SCOH 70	1 392	1 360	728	147	1 069	30	268	37	919	138	1 100	24
SCOC (H) 76	1 392	1 360	728	147	1 069	30	268	37	919	138	1 100	24
SCOC (H) 90	1 526	1 738	725	148	1 444	30	324	37	996	139	1 485	24
SCOH 120	1 526	1 738	725	148	1 444	30	324	37	996	139	1 485	24



SCOC-SCOH 150-180-240-300

All dimensions in mm

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
SCOC (H) 150	1 592	2 040	728	150	861	101	861	30	389	37	997	139	1 860	24
SCOC (H) 180	1 641	2 239	777	148	962	101	962	30	389	37	1 047	138	2 060	24
SCOH 240	1 794	2 639	857	148	1 162	101	1 162	30	389	37	1 200	138	2 460	24
SCOH 300	1 794	2 639	857	148	1 162	101	1 162	30	389	37	1 200	138	2 460	24

